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**Specialized Section on Standardization of Dry and Dried Produce**

### **UNECE Standard DDP-06 concerning the marketing and commercial quality control of almond kernels**

The following document is submitted to the Working Party for adoption as the revised UNECE Standard for Almond Kernels. The text of the Recommendation has been in trial since November 2015.

**Delegations are invited to comment on the tolerance for “bitter almonds in Extra Class” in “A. Quality tolerances” which currently is placed in square brackets.**

In case of non-agreement, the present text will be resubmitted to the Specialized Section on Standardization for Dry and Dried Produce in June 2017.

## **UNECE Standard DDP-06 concerning the marketing and commercial quality control of almond kernels**

### **I. Definition of produce**

This standard applies to sweet whole almond kernels of varieties (cultivars) grown from *Prunus amygdalus* Batsch, syn. *Prunus dulcis* (Mill.) D.A. Webb. The standard does not apply to bitter almond kernels, almond halves, pieces, sticks, slices, dices or to almond kernels that are processed by salting, sugaring, flavouring, or roasting, that are blanched or for industrial processing.

### **II. Provisions concerning quality**

The purpose of the standard is to define the quality requirements of Almond kernels at the export- control stage, after preparation and packaging.

However, if applied at stages following export, the holder/seller shall be responsible for observing the requirements of the standard. The holder/seller of products not in conformity with this standard may not display such products or offer them for sale, or deliver or market them in any other manner.

#### **A. Minimum requirements <sup>1</sup>**

In all classes, subject to the special provisions for each class and the tolerances allowed, the almond kernels must display the following characteristics:

The kernel must be:

- intact; however, kernels with less than 1/8th missing are considered as whole.
- sound; produce affected by rotting or deterioration such as to make it unfit for human consumption is excluded;
- clean; practically free of any visible foreign matter;
- sufficiently developed. Shrunken or shrivelled kernels which are extremely wrinkled, or with desiccated, dried out or tough portions affecting more than
- 25 per cent of the kernel and empty shells, are to be excluded;
- free from blemishes, areas of discoloration, yellowing, fat diffusion or spread stains in pronounced contrast with the rest of the kernel affecting in aggregate more than 25 per cent of the surface of the kernel;
- well-formed
- free from living pests, whatever their stage of development;
- free from damage caused by pests, including the presence of dead insects and/or mites, their debris or excreta;

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<sup>1</sup> Definitions of terms and defects are listed in annex III of the Standard Layout – Recommended terms and definition of defects for standards of dry (Inshell Nuts and Nut Kernels) and dried produce  
<[http://www.unece.org/trade/agr/standard/dry/StandardLayout/StandardLayoutDDP\\_e.pdf](http://www.unece.org/trade/agr/standard/dry/StandardLayout/StandardLayoutDDP_e.pdf)>

- free from mould filaments visible to the naked eye;
- free from rancidity;
- free of abnormal external moisture;
- free of foreign smell and/or taste.

The condition of the almond kernels must be such as to enable them:

- to withstand transportation and handling
- to arrive in satisfactory condition at the place of destination.

## **B. Moisture content <sup>2</sup>**

The almond kernels shall have moisture content not exceeding 6.5 per cent.

## **C. Classification**

In accordance with the defects allowed in section “IV. Provisions concerning tolerances”, almond kernels are classified into the following classes:

“Extra” Class, Class I and Class II.

The defects allowed must not affect the general appearance of the produce as regards quality, keeping quality and presentation in the package.

## **III. Provisions concerning sizing**

Sizing or screening is mandatory for Extra Class and Class I, and optional for Class II.

Sizing and screening are determined by the maximum diameter of the equatorial section of the almond kernel, by means of round-holed or elongated-holed screens. Other sizing and screening systems may be used, such as those based in the number of almond kernels per 100 g or per ounce (28,3495 grams).

- Sizing is expressed by an interval defined by a minimum and maximum size in millimetres, which must not exceed 2 mm of difference. When a range in count is specified, the almond kernels shall be fairly uniform in size, and the average count shall be within the range specified.
- Screening is expressed by a reference to a minimum size, in millimetres, followed by the words “and plus” or other equivalent wording, or by a reference to a maximum number of kernels per 100 g or per ounce, followed by the words “and less” or other equivalent wording.

Alternatively, screening could be expressed by a reference to a maximum size, in millimetres, followed by the words “and less” or other equivalent wording, or by a reference to a minimum number of kernels per 100 g or per ounce, followed by the words

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<sup>2</sup> The moisture content is determined by one of the methods given in <annex II of the Standard Layout – Determination of the moisture content for dry produce>  
[http://www.unece.org/trade/agr/standard/dry/StandardLayout/StandardLayoutDDP\\_e.pdf](http://www.unece.org/trade/agr/standard/dry/StandardLayout/StandardLayoutDDP_e.pdf). The laboratory reference method shall be used in cases of dispute.

“and plus” or other equivalent wording. For produce presented to the final consumer under on «screened», this alternative reference is not allowed.

## IV. Provisions concerning tolerances

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the minimum requirements of the class indicated.

### A. Quality tolerances

| <i>Defects allowed</i>   | <i>Tolerances allowed<br/>percentage of defective produce, by number<br/>or weight</i> |                |                 |
|--|--|----------------|-----------------|
|  | <i>Extra</i>   | <i>Class I</i> | <i>Class II</i> |
| (a) Tolerances for produce not satisfying the minimum requirements                 | 5  | 10             | 15              |
| of which no more than:   |  |                |                 |
| Rancid rotten, mouldy or damaged by pests or deterioration:                        | 1  | 2              | 3               |
| Of which mouldy <sup>a</sup>   | 0.5  | 0.5            | 1               |
| Not sufficiently developed, shrunken and shrivelled                                | 1  | 2              | 4               |
| Gummy, brown spot, blemishes and discoloration                                     | 2  | 3              | 6               |
| Pieces   | 1  | 1              | 3               |
| Split and broken   | 1  | 3              | 5               |
| Living pests   | 0  | 0              | 0               |
| (b) Size tolerances (if sized)   |  |                |                 |
| For produce not conforming to the size indicated, in total                         | 10   | 10             | 15              |
| (c) Tolerances for other defects   |  |                |                 |
| Foreign matter, loose shells, shell fragments, fragments of hull, dust (by weight) | 0.15   | 0.25           | 0.25            |
| Chipped and scratched with an area of larger than 6.4 mm or 0.25 inch              | 5  | 10             | 20              |
| Doubles or twins   | 5  | 15             | 20              |
| Almonds belonging to varieties or commercial types other than that indicated       | 5  | 5              | 5               |
| Bitter almonds <sup>b</sup>  | [1]  | 2              | 2               |

<sup>a</sup> Reservation of Poland that the tolerance for mould should be 0.5 per cent regardless of the class.

## **V. Provisions concerning presentation**

### **A. Uniformity**

The contents of each package must be uniform and contain only almond kernels of the same origin, quality, variety or commercial type, crop year (if indicated), and size (if sized).

The visible part of the contents of the package must be representative of its entire contents.

### **B. Packaging**

Almond kernels must be packed in such a way as to protect the produce properly.

The materials used inside the package must be clean and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications, is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

Packages must be practically free of all foreign matter in accordance with the table of tolerances in section “IV Provisions concerning tolerances”.

## **VI. Provisions concerning marking**

Each package <sup>3</sup> must bear the following particulars in letters grouped on the same side, legibly and indelibly marked and visible from the outside:

### **A. Identification**

Packer and/or Dispatcher:

Name and physical address (e.g. street/city/region/postal code and, if different from the country of origin, the country) or a code mark officially recognized by the national authority <sup>4</sup>

### **B. Nature of produce**

- “Almond Kernels”
- Name of variety or commercial type (optional)

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<sup>3</sup> These marking provisions do not apply to sales packages presented in packages.

<sup>4</sup> The national legislation of a number of countries requires the explicit declaration of the name and address. However, in cases where a code mark is used, the reference “packer and/or dispatcher” (or equivalent abbreviations) must be indicated in close connection with the code mark, and the code mark should be preceded with the ISO 3166 alpha country code of the recognizing country, if not the country of origin.

**C. Origin of produce**

- Country of origin<sup>5</sup> and, optionally, district where grown or national, regional or local place name.

**D. Commercial specifications**

- class
- size (if sized); expressed in accordance with section III
- crop year (optional)
- “Best before” followed by the date (optional).

**E. Official control mark (optional)**

Adopted 1986

Revised 2003, 2016

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<sup>5</sup> The full or a commonly used name should be indicated.